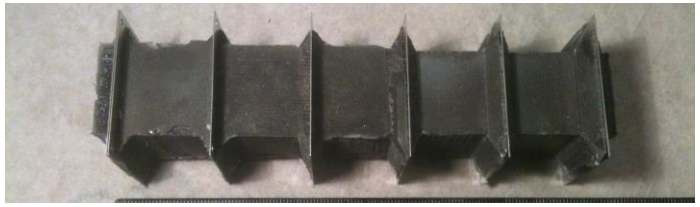
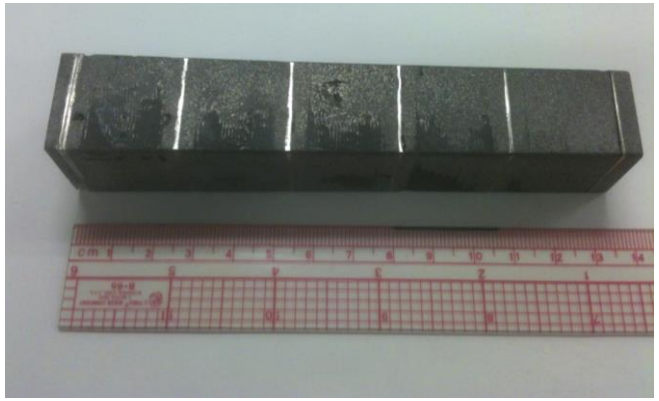
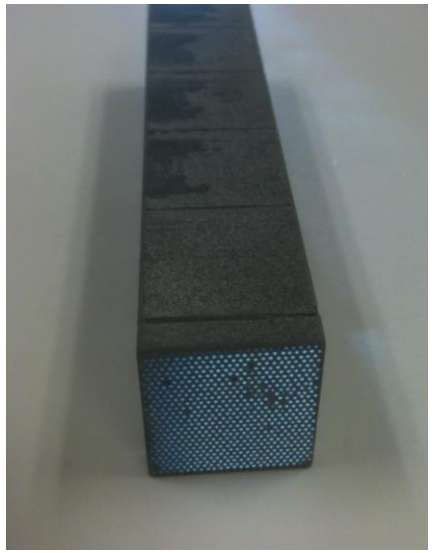
EMCal Update - 7/16/2015

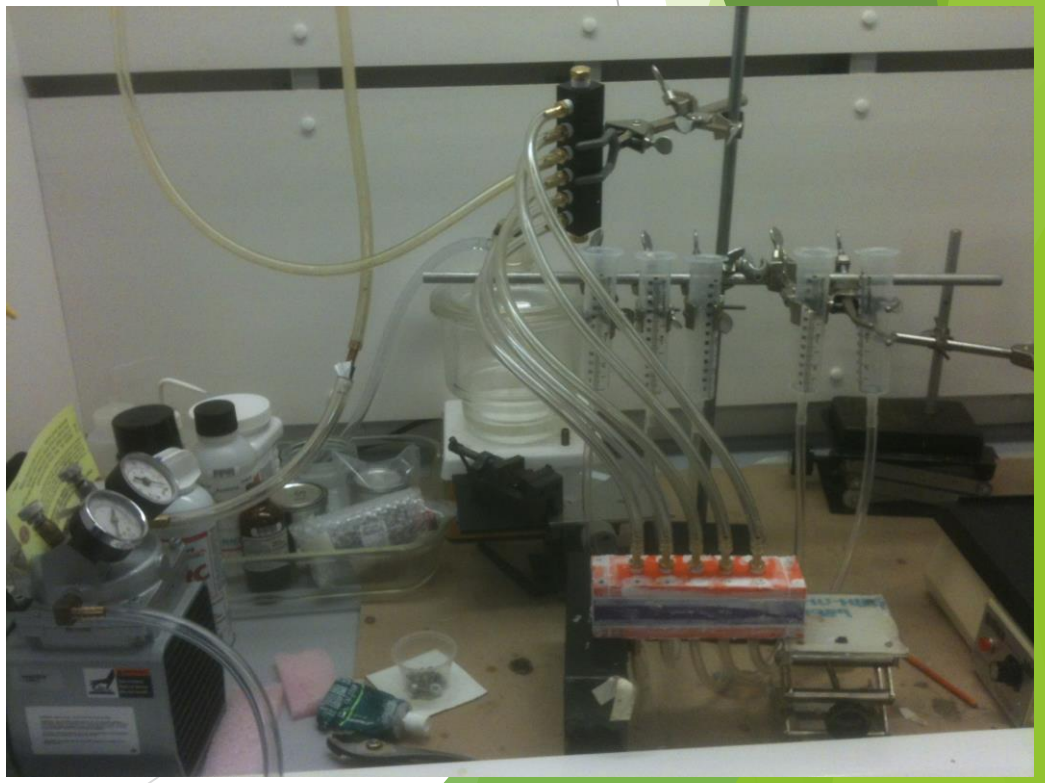
W/fiber module production:

- Continuing to develop 2 parallel methods: stepped screens and tilted wire frames
- Produced first 2-D projective module with stepped screen method
- Will make second module today with modified mold/procedure – shorter epoxy flow distances, multiple inputs/outputs
- Next step – make module with trimmed/borderless screens
- Looking at limitations of 1 tower vs 2x2 tower fabrication

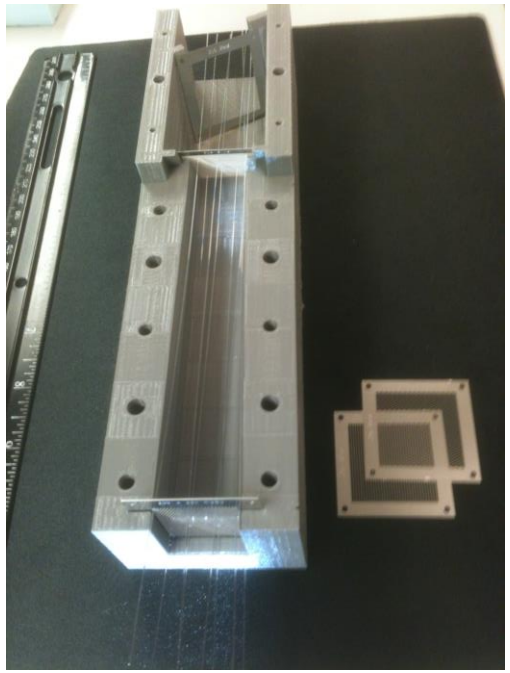


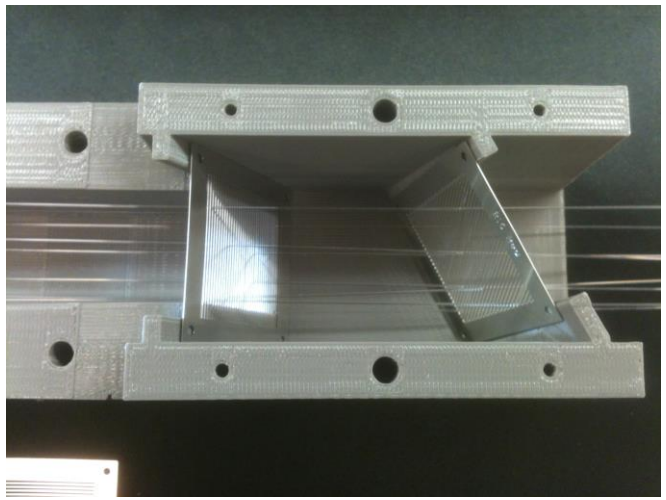


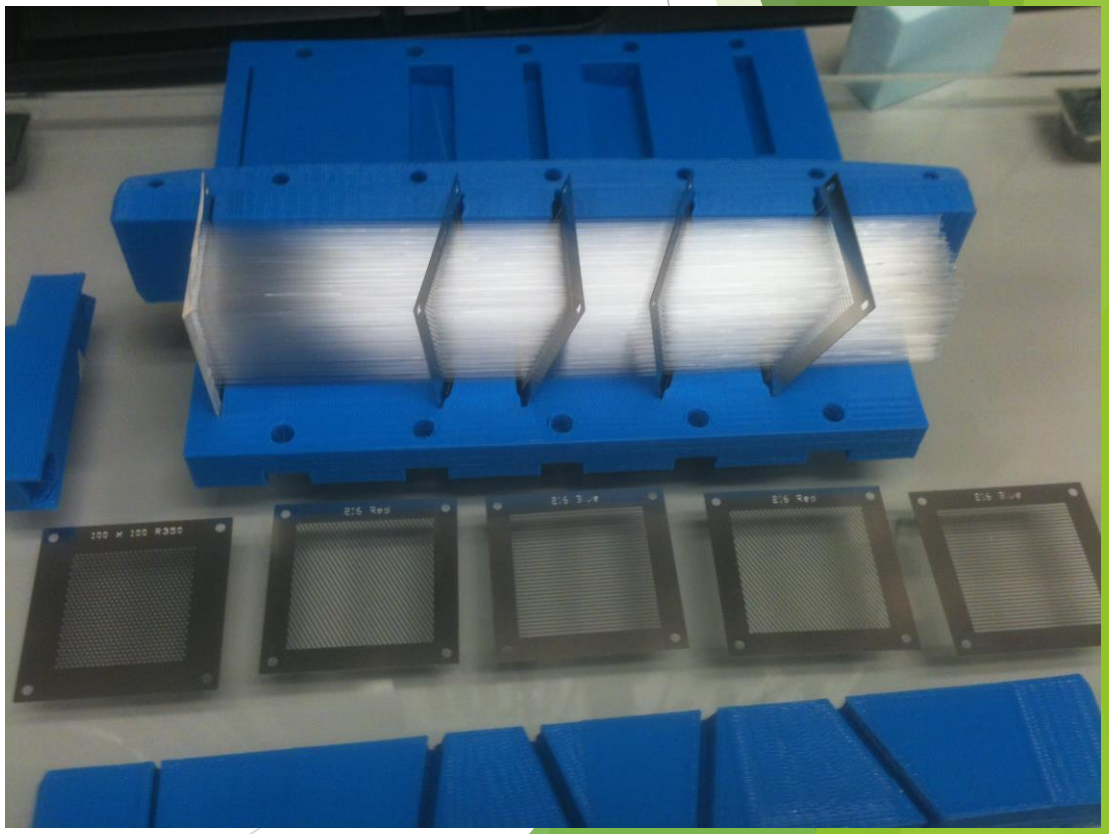




- Optimizing mold for tilted frames method – tuning frame positions and number of frames
- Loading of fiber/wireframe assemblies into mold
- Producing new drawings for “bowtie” molds





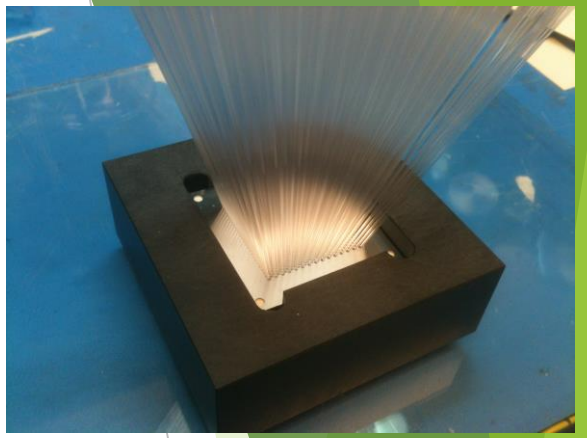


Refining process for loading fibers into screens

- Tuning shim spacing between screens
- Added a funnel/hopper to facilitate loading
- Tuned funnel pitch with shim spacing
- Added vacuum attachment

- Loading times consistently < 10 min for stepped screens, faster for “straight through” screens and wire frames

  - rapid prototyping helps immensely



Tungsten/fiber modules from Tungsten Heavy Powder.

- Doing Q/A measurements now
- Setting up for light output/uniformity measurements before doing destructive testing